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| **Name:** Theresa Law | | **Grade Level**: Second Grade |
| **Lesson Topic:** How Garbage Patches Affect Ocean Life | | |
| **Content :** Build awareness how our actions are affecting the earth and learn what we can do to help change the world | | |
| **Resources**:   * Map of the World * The Great Pacific Garbage Patch Map * The Five Gyres Map http://archive.theplastiki.com/assets/static/downloads/5gyres\_A4.jpg * Plastic, Ahoy! Investigating the Great Pacific Garbage Patch by Patricia Newman * JPEG Image of Garbage in Ocean | | |
| **Learning Background *(This lesson will be taught during Informational Reading and Writing Workshop)***   * Students have spent weeks researching penguins for their informational books. After collecting many penguin facts, students will analyze photographs of the Great Pacific Garbage Patch, including others garbage patches, and understand how it is affecting penguin's habitat. Later on in the writing unit, they will include information they learned about garbage patches in their informational books.   + Students who need more support with sharing their ideas out loud will use sentence frames   *Penguins are dying because...*  *I know because...*  *One idea is...* | | |
| **Lesson Objectives:**   * Students will learn how the Great Pacific Garbage Patch and other gyres are affecting ocean life, particularly penguin life, and will brainstorm how to solve this issue. | | |
| **Skills/Strategies**   * [CCSS.ELA-Literacy.RL.2.1](http://www.corestandards.org/ELA-Literacy/RL/2/1/) Ask and answer such questions as *who, what, where, when, why*, and *how* to demonstrate understanding of key details in a text.  * [CCSS.ELA-Literacy.RI.2.2](http://www.corestandards.org/ELA-Literacy/RI/2/2/) Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.  * [CCSS.ELA-Literacy.RI.2.3](http://www.corestandards.org/ELA-Literacy/RI/2/3/) Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.  * [CCSS.ELA-Literacy.RI.2.6](http://www.corestandards.org/ELA-Literacy/RI/2/6/) Identify the main purpose of a text, including what the author wants to answer, explain, or describe. * **DANIELSON FRAMEWORK:** 3B Using Questioning and Discussion Techniques  3C Engaging Students in Learning   **Document Based Questions:**   * How would you describe this photograph? * What kind of things do you see in this photograph? * What things do you recognize in this photograph? * What does the author want us to teach us? * How much plastic was in the Great Pacific Garbage Patch? | **Students will be expected to know:**   * What the Great Pacific Garbage Patch is * How garbage ends up where it doesn't belong and how it affects ocean life * Plastic has drifted from rivers, beaches, and ocean to all over the world. Most of it has broken down into tiny pieces called micro plastic. * How other gyres (other garbage patches) affect penguins habitat because of their proximity to penguin's habitat * Penguin population in the South Hemisphere is declining for the following reasons: 1) Penguins are eating plastics 2)Chicks are dying 3) Food supply is diminishing * Pollution is the main reason for the decline   **Key terms/Vocabulary**   * endangered * threatened * pollution * microplastic * gyre | |
| **Hands-on Activity:**   * Students will use key terms and reflect on what they learned in their Reader's Reponse notebooks | | |
| **Lesson Outline:**   * Project image of garbage in ocean on SMARTBOARD: Ask Document Based Questions. * Project the Great Pacific Garbage Patch map: Explain how waste ends up in that area. * Read excerpts from Plastic, Ahoy! by Patricia Newman and ask Document Based Questions * Show confetti to help students understand the size of microplastic and how easily mircoplastic can be digested * Explain there are other garbage patches known as 'gyres' and highlight them on map * Ask students to list where Penguins live and highlight the continents on map (Students are expected to know this information). Students will notice that some garbage patches are located near penguin's homes such as Africa, Australia, and South America * Discuss how these garbage patches affect penguin's life * Discuss how to problem solve this issue: "Let's brainstorm how to stop these patches from collecting MORE garbage. Let's come up with ideas on how to clean these patches." * Record students' responses * Students will work independently and write what they learned in their Reader's Response notebooks and use checklists to self-assess their own work at the end. | | |
| **Assessment Method**  Students will use checklists to self-assess if they understand the content.   |  |  |  |  | | --- | --- | --- | --- | | *Name:* | *Yes* | *No* | *If no, write your missing information here* | | *Did you explain what garbage patches are?* | 🗸 |  |  | | *Did you explain HOW garbage ends up in the ocean?* |  | *🗸* |  | | *Did you explain what is happening to the penguin's population?* | 🗸 |  |  | | *Did you share your idea on how to solve this issue?* |  | 🗸 |  |   When reading students' reflections, I will use a checklist   |  |  |  |  | | --- | --- | --- | --- | | Name | Explain what the Great Pacific Garbage Patch is | Understand what is happening to the penguin's population | List ideas on how to solve this issue | | Anna | 🗸 | 🗸 | 🗸 | | Brian | 🗸 | 🗸 |  | | | |
| **Conclusion**  Review key points the students learned and reinforce the idea that they have the power to help the world. The next day, they will learn about activisms and what they can do to help penguins and the world  **Follow Up Lessons &Activities**   * What is Earth Day April 22nd and the history behind this cause * Reduce, Reuse, Recycle: Learning how to eliminate waste and protect our environment | | |